



Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

Planet Ranch Conservation Area

2017 Annual Report



December 2018

Work conducted under LCR MSCP Work Task E21

Lower Colorado River Multi-Species Conservation Program Steering Committee Members

Federal Participant Group

Bureau of Reclamation
U.S. Fish and Wildlife Service
National Park Service
Bureau of Land Management
Bureau of Indian Affairs
Western Area Power Administration

Arizona Participant Group

Arizona Department of Water Resources
Arizona Electric Power Cooperative, Inc.
Arizona Game and Fish Department
Arizona Power Authority
Central Arizona Water Conservation District
Cibola Valley Irrigation and Drainage District
City of Bullhead City
City of Lake Havasu City
City of Mesa
City of Somerton
City of Yuma
Electrical District No. 3, Pinal County, Arizona
Golden Shores Water Conservation District
Mohave County Water Authority
Mohave Valley Irrigation and Drainage District
Mohave Water Conservation District
North Gila Valley Irrigation and Drainage District
Town of Fredonia
Town of Thatcher
Town of Wickenburg
Salt River Project Agricultural Improvement and Power District
Unit "B" Irrigation and Drainage District
Wellton-Mohawk Irrigation and Drainage District
Yuma County Water Users' Association
Yuma Irrigation District
Yuma Mesa Irrigation and Drainage District

Other Interested Parties Participant Group

QuadState Local Governments Authority
Desert Wildlife Unlimited

California Participant Group

California Department of Fish and Wildlife
City of Needles
Coachella Valley Water District
Colorado River Board of California
Bard Water District
Imperial Irrigation District
Los Angeles Department of Water and Power
Palo Verde Irrigation District
San Diego County Water Authority
Southern California Edison Company
Southern California Public Power Authority
The Metropolitan Water District of Southern California

Nevada Participant Group

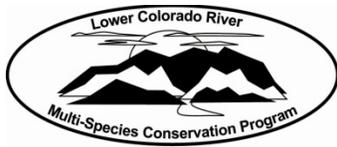
Colorado River Commission of Nevada
Nevada Department of Wildlife
Southern Nevada Water Authority
Colorado River Commission Power Users
Basic Water Company

Native American Participant Group

Hualapai Tribe
Colorado River Indian Tribes
Chemehuevi Indian Tribe

Conservation Participant Group

Ducks Unlimited
Lower Colorado River RC&D Area, Inc.
The Nature Conservancy



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ACRONYMS AND ABBREVIATIONS

AGFD	Arizona Game and Fish Department
FY	fiscal year
LCR MSCP	Lower Colorado River Multi-Species Conservation Program
lidar	light detection and ranging
Planet Ranch	Planet Ranch Conservation Area
Reclamation	Bureau of Reclamation
SWCA	SWCA Environmental Consultants

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1.0 INTRODUCTION

The purpose of this annual report is to summarize all activities that have occurred at the Planet Ranch Conservation Area (Planet Ranch) from October 1, 2016, through September 30, 2017, which is Federal fiscal year (FY) 2017. Water usage is presented for December 15, 2016, through December 14, 2017.

1.1 Background

The historic footprint of Planet Ranch encompasses approximately 8,000 acres. In 2008, following several years of evaluation, the Lower Colorado River Multi-species Program (LCR MSCP) Steering Committee approved a land and water resolution authorizing the Bureau of Reclamation (Reclamation) to purchase a lease for 3,418 acres of land and 5,549 acre-feet of water per year from the Byner Cattle Company (a subsidiary of Freeport-Minerals Corporation). The purpose for the lease was to develop the site as an LCR MSCP conservation area. This transaction was completed in December 2015, when further authorized by the Congress through the Bill Williams River Water Rights Settlement Act of 2014, Public Law 113-223. Immediately following execution of this lease, Freeport-Minerals Corporation donated the leased area to the Arizona Game and Fish Commission, which is now the landowner. The sum of \$8,300,000 to secure this land and water was determined through the Federal appraisal process.

The restoration concept for Planet includes development of a minimum of 60 acres of backwater, improvements to protect the site from flows within the Bill Williams River and adjacent drainages, establishment of a mosaic of Fremont cottonwood (*Populus fremontii*) and Goodding's willow (*Salix gooddingii*) [hereafter cottonwood-willow], and honey mesquite (*Prosopis glandulosa*) where opportunities arise, and other improvements necessary to support long-term operation and maintenance of the site.

Creditable acreage under the LCR MSCP Habitat Conservation Plan is anticipated to include: (1) active restoration within the property boundary, (2) passive restoration within the active Bill Williams River channel on the property, and (3) downstream credit on the Bill Williams River National Wildlife Refuge.

2.0 CONSERVATION AREA INFORMATION

2.1 Purpose

Planet Ranch will be developed for native fishes and terrestrial wildlife species. The ponds will be managed for razorback sucker (*Xyrauchen texanus*) and bonytail (*Gila elegans*), whereas the riparian area provides habitat for a variety of

avian, reptile, and small mammals species. Riparian areas will be created and supported by overflow from the ponds and will be evaluated annually to determine if conditions are appropriate for species covered by the LCR MSCP.

2.2 Location

Planet Ranch is located along the Bill Williams River in Arizona, Reach 3, River Mile 190, approximately 20 miles northeast of Parker, Arizona, and upstream to the east and adjacent to the Bill Williams River National Wildlife Refuge (figure 1). The Bill Williams River is the boundary between La Paz County to the south and Mohave County to the north; therefore, Planet Ranch is located within both counties.

2.3 Landownership

Planet Ranch is located on land owned by the Arizona Game and Fish Commission; it is leased by the LCR MSCP.

2.4 Water

Planet Ranch acquisition included a water entitlement of 5,549 acre-feet per year registered with the Arizona Department of Water Resources. The water entitlement must be trued-up every 5 years. In 2017, 5,549 acre-feet of water was applied on the alfalfa (*Medicago sativa*) pasture area by a contract farmer. On December 15, 2017, farming ceased, and the process to remove the irrigation system began.

2.5 Agreements

An agreement that ensured 3,418 acres of land and 5,549 acre-feet of water would be leased to Reclamation was executed between the Byner Cattle Company and Reclamation to allow the LCR MSCP to create habitat on Planet Ranch in November 2015.

An Assignment, Assumption and Release Agreement was signed by the Byner Cattle Company, the Arizona Game and Fish Commission, and Reclamation in December 2015. In accordance with the document, title to 3,418 acres of land and 5,549 acre-feet of water will be donated to the Arizona Game and Fish Commission and 3,418 acres of land will be leased to Reclamation from the Arizona Game and Fish Commission.

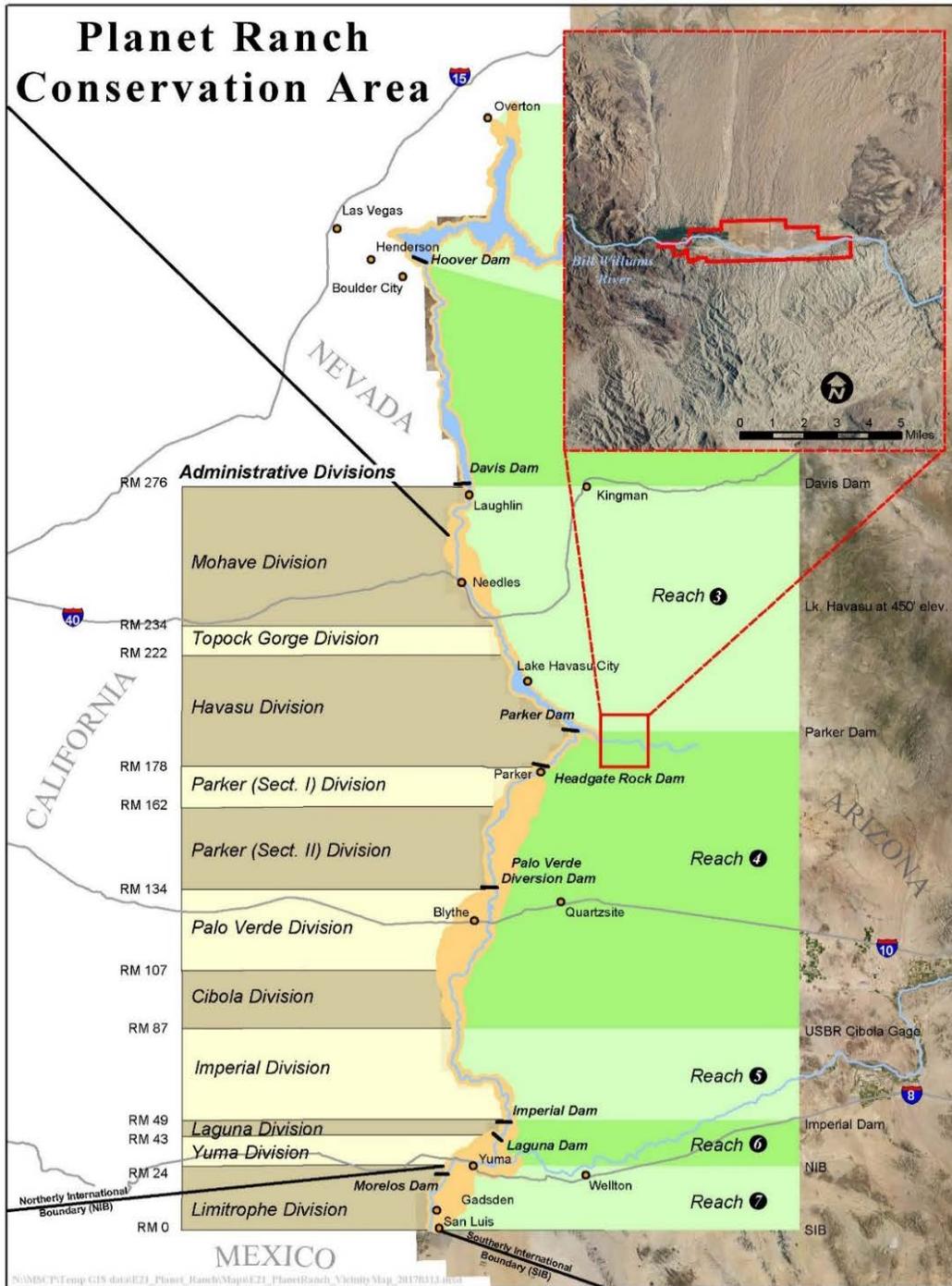


Figure 1.—Project location.

**Planet Ranch Conservation Area
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Lease amendment No. 1 defines conservation in terms of the entire 3,418 acres; however, it also describes the separation of management obligations between the LCR MSCP and Arizona Game and Fish Commission. The entire ranch west of the river crossing (approximately 1/3 of the conservation area) would be managed for the LCR MSCP covered species as the primary habitat area. The acres east of the river crossing, defined as “Reserved” under the lease, are available for future development of Planet Ranch if necessary by the LCR MSCP if additional land for restoration is necessary. The land east of the river crossing road (approximately 2/3 of the conservation area), which is not scheduled for restoration, would be managed by the Arizona Game and Fish Department (AGFD) after farming and stabilization of the fallow ground is completed.

2.6 Public Use

On January 28, 2016, the north and south gates to Planet Ranch were opened by the AGFD after 32 years. The opening of the gates allowed public access to the Planet Ranch road, which crosses the Bill Williams River and provides vehicular travel from Mohave County to La Paz County. During farming and development of the habitat area, public use is limited to the north-south Planet Ranch road.

2.7 Law Enforcement

Law enforcement activities at Planet Ranch are performed by the AGFD, Bureau of Land Management, and the La Paz and Mohave County Sheriff’s Departments.

2.8 Wildfire Management

The LCR MSCP is responsible for wildfire management at Planet ranch. As guided by commitments in the LCR MSCP Habitat Conservation Plan, wildfire management practices on the conservation area will “Reduce the risk of loss of related habitat to wildfire by providing resources to suppress wildfires, e.g., contributing to and integrating with local, State, and Federal agency fire management plans, and implement land management and habitat creation measures to support the reestablishment of native vegetation that is lost to wildfire” (LCR MSCP 2010).

Federal, State, and local fire agencies, either by existing management agreements or mutual aid agreements, provide wildland fire suppression, incident dispatch, fire investigation, fuels reduction, and potential fire restrictions. The full range of suppression strategies are available to managers provided that selected options do

not compromise firefighter or public safety, are cost effective, consider the benefits of suppression and the values to be protected, and are consistent with resource objectives.

3.0 HABITAT DEVELOPMENT AND MANAGEMENT

Figure 2 shows the established land cover types that are being managed for LCR MSCP covered species.

3.1 Planting

No additional planting occurred in 2017. The fields (figure 3) were irrigated and managed as pasture for wildlife. No planting for restoration was conducted.

3.2 Irrigation

To ensure the viability of water rights associated with the property, alfalfa was grown from December 15, 2016, through December 14, 2017. Water usage is tracked through totalizing flow meters and, when combined with acreage being farmed, documents the beneficial use of water on the property. An average of 465 acre-feet per month was applied during the months of January through December 2017, for a total of 5,549 acre-feet for the year.

3.3 Site Management

Normal road maintenance, such as road grading, was done as needed. There will be no public access to the fish grow-out ponds/refugia, housing, or maintenance areas. Multiple storms caused power outages at Planet Ranch in FY17. Both the Arizona Public Service, which services La Paz County, and UniSource Energy Services, which services Mohave County, dispatched crews, and power was restored.

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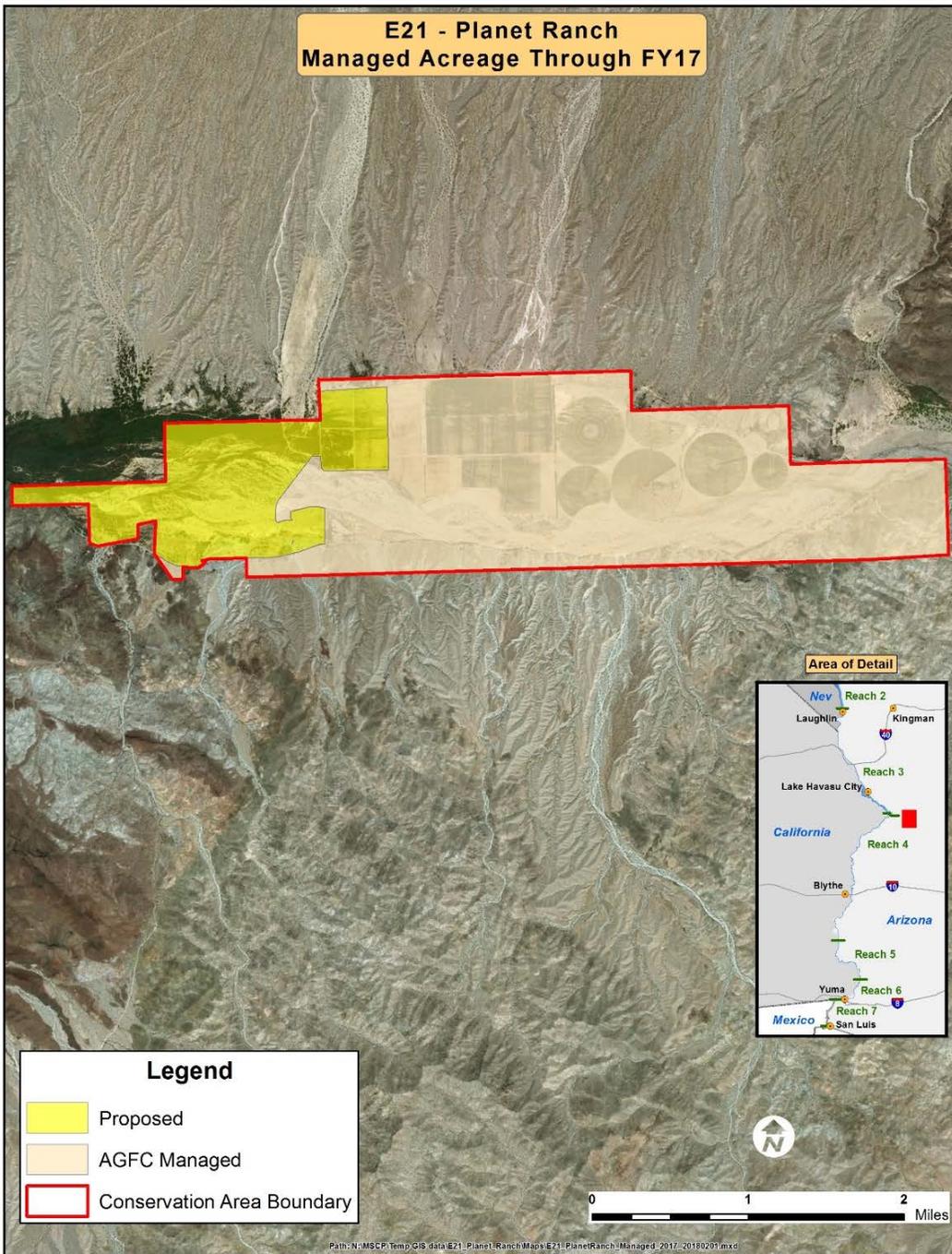


Figure 2.—Planet Ranch managed acreage through FY17.

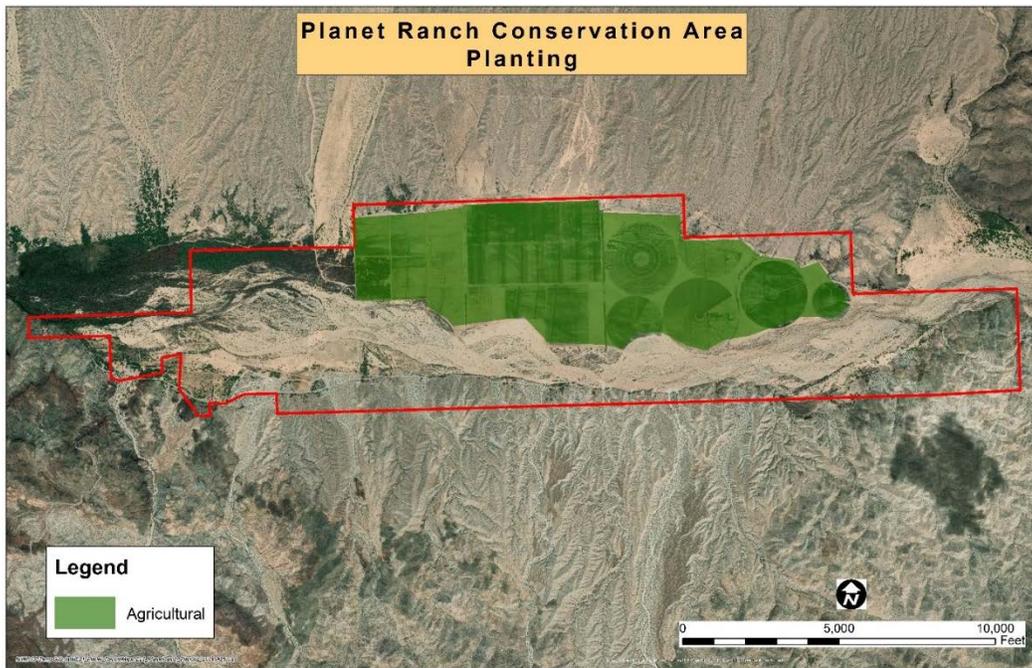


Figure 3.—Existing land cover types.

3.4 Site Development

Planning, permitting, and design of Planet Ranch was initiated. In support of the permitting and design efforts, the following studies were completed in 2017: (1) a hydraulic and hydrologic analysis of the Bill Williams River and side drainages at Planet Ranch, (2) a scour analysis and bank line stabilization, (3) pond liner recommendations, (4) and slope stability calculations.

4.0 MONITORING

4.1 Backwater Monitoring

Backwater monitoring did not occur in 2017.

4.1.1 Native Fishes

Native fish monitoring did not occur in 2017.

4.1.2 Water Quality

Water quality testing did not occur in 2017.

4.1.3 Phytoplankton and Zooplankton

No phytoplankton or zooplankton surveys were not conducted in 2017.

4.2 Avian Monitoring

Avian monitoring in FY17 included surveys for southwestern willow flycatchers (*Empidonax traillii extimis*) and riparian breeding birds.

4.2.1 Southwestern Willow Flycatcher Surveys

4.2.1.1 Planet Ranch

Surveys to detect presence of southwestern willow flycatchers were conducted five times during FY17 in cottonwood-willow habitat on Planet Ranch. No breeding or resident southwestern willow flycatchers were detected (McLeod and Pellegrini, *in press*).

4.2.1.2. Middle Bill Williams River National Wildlife Refuge

Surveys to detect presence of southwestern willow flycatchers were conducted five times during FY17 in cottonwood-willow habitat in the Middle Bill Williams River National Wildlife Refuge. There were no southwestern willow flycatchers detected (McLeod and Pellegrini, *in press*).

4.2.2 General Avian Surveys

4.2.2.1 Planet Ranch

Bird surveys were conducted to detect breeding LCR MSCP riparian bird species and other territorial riparian bird species in existing habitat prior to additional planting. Surveys were conducted within areas of riparian land cover types that were of adequate growth to support breeding birds. General bird surveys resulted in the detection of 22 species (109.25 territories) of birds breeding within the surveyed plots. Arizona Bell's vireo (*Vireo bellii arizonae*), Gila woodpecker (*Melanerpes uropygialis*), Sonoran yellow-warbler (*Dendroica petechia sonorana* = *Setophaga petechia sonorana*), and vermilion flycatcher (*Pyrocephalus rubinus*) were confirmed breeding (table 1) (SWCA Environmental Consultants [SWCA] 2018).

Table 1 shows the number of breeding territories of LCR MSCP covered species at Planet Ranch in FY17 (SWCA 2018).

Table 1.—Number of breeding territories per LCR MSCP covered species¹ at Planet Ranch, FY17

LCR MSCP covered species	Number of confirmed breeding territories
Arizona bell's vireo	15.25
Gila woodpecker	3
Sonoran yellow warbler	2
Vermilion flycatcher	3

¹ Number of breeding territories refers to the number of territories that are within the sampled area for pairs that were confirmed breeding. Partial territories are possible, as the amount of each territory within the sampled area was estimated to 0.25, 0.5, 0.75, or 1.0.

4.2.2.2 Middle Bill Williams River National Wildlife Refuge

Bird surveys were conducted to detect breeding LCR MSCP riparian bird species and other territorial riparian bird species. Surveys were conducted within areas of the cottonwood-willow and mesquite land cover types that were of adequate growth to support breeding birds. General bird surveys resulted in the detection of 24 species (513.5 territories) of birds breeding within the surveyed plots. Arizona Bell's vireos, Gila woodpeckers, Sonoran yellow-warblers, and summer tanagers (*Piranga rubra*) were confirmed breeding (table 2) (SWCA 2018).

Table 2 shows the number of breeding territories of LCR MSCP covered species at the Middle Bill Williams River National Wildlife Refuge in FY17 (SWCA 2018).

Table 2.—Number of breeding territories per LCR MSCP covered species¹ at the Middle Bill Williams River National Wildlife Refuge, FY17

LCR MSCP covered species	Number of confirmed breeding territories
Arizona bell's vireo	11.0
Gila woodpecker	11.25
Sonoran yellow warbler	33.75
Summer tanager	6

¹ Number of breeding territories refers to the number of territories that are within the sampled area for pairs that were confirmed breeding. Partial territories are possible, as the amount of each territory within the sampled area was estimated to 0.25, 0.5, 0.75, or 1.0.

5.0 HABITAT CREATION CONSERVATION MEASURE ACCOMPLISHMENT

5.1 Vegetation Monitoring

Vegetation data were collected in FY17 using light detection and ranging (lidar). Lidar measures the vegetation structure throughout the canopy and provides the ability to identify structural diversity and successional growth stages. Conservation area vegetation will be evaluated on a periodic basis using lidar to ensure the habitat is meeting species' requirements. A procedure to analyze and provide vegetation structure metrics will be developed, and the results will be presented in future reports.

5.2 Abiotic Monitoring

No abiotic monitoring occurred in 2017.

5.3 Evaluation of Conservation Area or Habitat

The Final Habitat Creation Conservation Measure Accomplishment Tracking Process was finalized in October 2011 (LCR MSCP 2011). All areas within Planet Ranch were designed to benefit covered species at the landscape level.

To meet species habitat creation requirements, the Habitat Conservation Plan provides goals for habitat creation based on land cover types (LCR MSCP 2004). These land cover types are described using the Anderson and Ohmart vegetation classification system (Anderson et al. 1976, 1984a, 1984b).

6.0 ADAPTIVE MANAGEMENT RECOMMENDATIONS

Under the Adaptive Management Program, habitat creation sites will be assessed for biological effectiveness and whether they fulfill the conservation measures outlined in the Habitat Conservation Plan for 26 covered species and if they potentially benefit 5 evaluation species. Post-development monitoring and species research results will be used to adaptively manage habitat creation sites after initial implementation. Once monitoring data are collected over a few years,

and then analyzed for Planet Ranch, recommendations may be made through the adaptive management process for site improvements in the future.

There are no adaptive management recommendations for Planet Ranch at this time.

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